545/1
CHEMISTRY
Paper 1
2 hours

JOURNEY OF SUCCESS EXAMINATIONS BOARD

Uganda lower secondary certificate of education

MOCK ASSESSMENT
CHEMISTRY THEORY
PAPER ONE
2 HOURS

INSTRUCTIONS TO CANDIDATES:

- *This paper consists of* **two** *sections;* **A** *and* **B**. *It has* **six** *examination items.*
- *Section* **A** *has* **two compulsory** *items*.
- *Section* **B** *has* **two Parts**; **I** and **II**. *Answer* **one** *item from* **each** *part*.
- *Answer four items in all.*
- *Answers to Section* **A must** *be written in the spaces provided while those of Section* **B must** *be written on the answer booklet(s) provided.*
- *Any additional item(s) answered will* **not** *be scored.*

SECTION A

Answer all questions in this section

Item 1.

Wandera sales boiled drinking water in Buyende. However, some clients are complaining about the sauce pan he uses that it contains some black spots which was found at the bottom of the sauce pan. The customers are saying that he is either just dirty or he is using some charm to attract them. He has tried to talk to them that this has become a challenge either due to the smoke from the stove or the water he uses and he has no idea of overcoming it.

As a chemistry student;

(a) Briefly explain how Wandera can convince his customers who are accusing him **(03mks)**

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(b) Explain the effects if any **(03mks)**

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(c) How can he overcome the above challenge. **(03mks)**

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Item 2.

In the last 20 to 40 years, plastics such as polythene bags, bottles have taken over as replacement materials for metals, glass, paper and wood as well as for natural fibres such as cotton and wool. However, Plastic waste management is a challenge in our communities today. Poor disposal of plastics as shown in the picture below is a big threat to human health around the globe.

a) What is the chemical nature of the replacement? **(1mk)**

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b) Suggest two useful properties that makes them the best replacement.**(2mks)**

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c) Explain any three ways how they are a threat to our environment.**(3mks)**

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d) Explain any three ways of how to overcome the above threats. **(3mks)**

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SECTION B
Part I

*Answer **one** item from this section.*

Item 3.

There are myths surrounding the existence of most rocks in Uganda. For example, the occurrence of earthquakes is linked to cultural gods. The existence of certain rocks in some areas is linked to ancestral activities. Your friend John has just asked you to help his colleague to end this wrong myth because John thinks that there is chemistry behind their existence although he lacks enough knowledge about this

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Task

Prepare a comprehensive presentation to help his friend to understand.

Item 4.

Many people in Uganda are good at drinking local waragi (ethanol). However, the government is against the activity due to associated challenges yet there are many people benefiting. The chairpersons want to sensitize the communities about the large-scale production process including its impact to enable them understand the government position.

The chairperson of your community has contacted you as a student with the knowledge of chemistry in your village to provide the relevant information

TASK

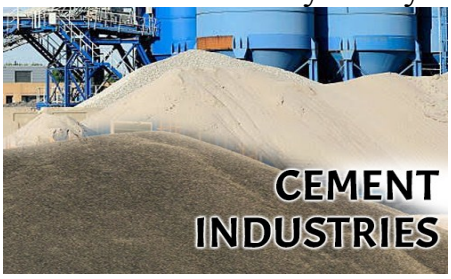
Make a write up to use upon meeting the community.

Part II

*Answer **one** item from this part.*

Item 5.

Over 2000 year ago, Lime and cement production has undergone tremendous developments. Cement is an important chemical in most communities for development in the infrastructure and construction sector. This has raised its demand and it has attracted many local investors, unfortunately the investors have some doubts on their scientific knowledge on the production process and the likely impact on the environment yet they have all the funds.



Task

You have been contacted; write a message to the investors to settle their doubts before their final interaction with residents.

Item 6.

Professor Kiwanuka from the University of Mombasa ‟ lung institute said they have done research that 11% of the Africans suffer from asthma and that this is attributed to poor air quality and the same research shows that children in rural settings had “better and less damaged lungs" than those in urban settings, who were exposed to pollutants in the air. NEMA's director for environment monitoring and compliance, Waiswa Ayazika, said: “the government is currently making a clear plan to improve air quality involving every body's responsibility to save the current and future generation.” by raising awareness about the effect of human activities on our environment.

A sensitization workshop is to be organized to address the above issue.

Task

As chemistry student, write a massage you will deliver upon invitation.